

WHAT IS CLAIMED IS:

1. A process for treating tissue of an animal with at least one bioactive compound comprising the steps of:

providing a composition comprising a carrier, at least one bioactive compound and at least one anti-irritant in an effective amount to block pain receptors temporarily in animal tissue, wherein said anti-irritant is a natural or artificial sweetener and is included in an amount effective to temporarily suppress pain receptors and inhibit pain and irritation of a tissue in a target site in said animal; and

contacting said composition with said target site to deliver an effective amount of said bioactive compound and anti-irritant for sufficient time to treat said tissue with said bioactive compound and to temporarily suppress pain and irritation of said tissue in said target site.

2. The process of claim 1, wherein said composition is an oral composition and said tissue being treated is in the mouth and wherein said process comprises orally administering said composition.

3. The process of claim 1, wherein said at least one bioactive compound is a pharmaceutically active compound selected from the group consisting of analgesics, antibiotics, antibacterial agents, immunosuppressive agent, antifungal agent and anti-inflammatory agents.

4. The process of claim 1, wherein said bioactive compound is selected from the group consisting of salicylic acid acetate, acetaminophen and ibuprofen.

5. The process of claim 1, wherein said anti-irritant is an artificial sweetener and is included in an amount sufficient to suppress pain and irritation in said target site caused by said bioactive compound.

6. The process of claim 1, wherein said anti-irritant is a sweetener selected from the group consisting of saccharin, aspartame, cyclamates, and salts thereof.

7. The process of claim 1, wherein said bioactive compound is an acid in an amount to provide a solution in said target site having a pH of less than pH 6.0.

8. The process of claim 7, wherein said acid is included in an amount to provide a solution in said target site having about pH 2.0 to about pH 5.0.

9. The process of claim 1, wherein said carrier is a water soluble solid and said composition is a solid composition, said process comprising contacting said solid composition with body fluids to release said bioactive compound and anti-irritant to said target site.

10. The process of claim 1, wherein said composition is a substantially dry composition, said process comprising dispersing or dissolving said composition in a liquid carrier and thereafter contacting said composition with said target site.

11. The process of claim 7, wherein said acid is selected from the group consisting of citric acid, acetic acid, ascorbic acid, malic acid, adipic acid, fumaric acid, and mixtures thereof.

12. The process of claim 1, wherein said at least one bioactive compound is citric acid in an amount to provide a solution at said target site having about pH 2.0 to about pH 4.0 and wherein said sweetener is saccharin in an amount to suppress pain receptors temporarily on the tissue in said target site.

13. The process of claim 1, wherein said bioactive compound is an alkaline material.

14. The process of claim 1, wherein said anti-irritant is an artificial sweetener and said composition comprises about 10% to about 30% by weight of said artificial sweetener.

15. The process of claim 1, wherein said carrier is a gum base or a water soluble base.

16. The process of claim 1, wherein said carrier comprises water and where said composition is an aqueous composition.

17. The process of claim 2, wherein said target site is the teeth and gums.

18. The process of claim 1, wherein said composition is an acid aqueous solution having about pH 2.0 to about pH 6.0.

19. The process of claim 18, wherein said composition includes ascorbic acid and a stabilizing agent in an amount to inhibit decomposition of said ascorbic acid.

20. The process of claim 19, wherein said stabilizing agent is selected from the group consisting of cysteine, magnesium salts, phosphoric acid derivatives and metabisulfite derivatives.

21. The process of claim 20, wherein said stabilizing agent is magnesium sulfite.

22. The process of claim 20, wherein said stabilizing agent is a plant extract or herbal preparation.

23. The process of claim 20, wherein said phosphonic acid derivative is selected from the group consisting of methylenediamine tetra(methylenephosphonic acid), hexamethylenediamine tetra(methylenephosphonic acid) and diethylenetriamine tetra(methylenephosphonic acid).

24. A process for treating tissue of an animal comprising the steps of:

providing a composition comprising a carrier, ascorbic acid, a stabilizing agent in an amount to inhibit decomposition of said ascorbic acid, and an anti-irritant in an effective amount to block pain receptors temporarily in animal tissue, wherein said anti-irritant is a natural or artificial sweetener and is included in an amount effective to temporarily inhibit pain and irritation of said tissue in a target site; and

topically administering said composition to said target site to deliver said ascorbic acid and anti-irritant to said target site to temporarily suppress pain and irritation of tissue in said target site.

25. The process of claim 24, wherein said composition further comprises a bioactive agent.

26. The process of claim 24, wherein said anti-irritant is included in an amount to inhibit pain and irritation caused by said ascorbic acid.

27. The process of claim 24, wherein said stabilizing agent is selected from the group consisting of magnesium salts, phosphoric acid derivatives and metabisulfite derivatives.

28. The process of claim 24, wherein said stabilizing agent is magnesium sulfite.

29. The process of claim 24, wherein said composition is an aqueous composition.

30. The process of claim 24, wherein said carrier is a water soluble carrier and said process comprises administering said solid to said target site.

31. The process of claim 24, wherein said composition is a substantially dry solid, said process comprising dispersing said composition in water to form an aqueous solution, and topically administering said aqueous solution.

32. A process for administering a bioactive agent and temporarily suppressing pain receptors and inhibiting pain and irritation of the tissue of an animal, said process comprising the steps of:

providing a composition comprising a carrier, at least one bioactive agent and at least one anti-irritant, said anti-irritant being a natural sweetener or non-nutritive sweetener in an effective amount to suppress the pain receptors of the tissue and to reduce pain and irritation to the tissue caused by said composition, and

contacting said tissue and body fluids of said tissue with said composition to deliver said bioactive agent and anti-irritant in an amount to treat said tissue with said bioactive agent substantially without irritation to said tissue.

33. The process of claim 32, wherein said carrier is a water soluble solid or an aqueous carrier.

34. The process of claim 32, wherein said tissue is in the mouth of a patient and said process comprises delivering said composition in the mouth of said patient.

35. The process of claim 32, wherein said composition further comprises an acid in an amount to provide a solution having a pH 6.0 or less.

36. The process of claim 32, wherein said composition includes at least one acid to provide a solution with a pH 2.0 to about pH 5.0.

37. The process of claim 32, wherein said acid is selected from the group consisting of citric acid, acetic acid, malic acid, adipic acid, fumaric acid, ascorbic acid, and mixtures thereof.

38. The process of claim 32, wherein said carrier is a water soluble solid and said composition comprises ascorbic and citric acid in an amount to provide a solution having a pH of 4.0 or less and said sweetener is saccharin in an amount to suppress pain receptors temporarily on the tissue being treated.

39. The process of claim 32, wherein said at least one bioactive compound is a pharmaceutically active compound selected from the group consisting of analgesics, antibiotics, antibacterial agents, anti-inflammatory agents, antifungals, immuno-suppressive agents, and mixtures thereof.

40. The process of claim 32, wherein said carrier is a chewing gum base.

41. The process of claim 32, wherein said sweetener is selected from the group consisting of sorbitol, mannitol, xylitol, saccharin, aspartame, cyclamates, and salts thereof.

42. The process of claim 32, wherein said composition comprises at least about 10% by weight of said sweetener.

43. The process of claim 32, wherein said bioactive agent is selected from the group consisting of salicylic acid acetate, acetaminophen and ibuprofen.

44. The process of claim 32, wherein said composition further comprises ascorbic acid and a stabilizing agent in an amount effective to inhibit decomposition of said ascorbic acid.

45. The process of claim 44, wherein said stabilizing agent is selected from the group consisting of magnesium salts, phosphonic acid derivatives and metabisulfite derivatives.

46. The process of claim 44, wherein said composition is an aqueous composition and where said stabilizing agent is selected from the group consisting of cysteine and magnesium sulfite.